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Mary E. Golota Cantor Colburn LLP 201 W. Big Beaver Road Suite 1101 Troy, MI 48084			FRANK, NOAH S	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## **DETAILED ACTION**

### ***Claim Objections***

Claim 3 objected to because of the following informalities: Claim 3 depends on claim 2, which is cancelled. For the purposes of examination, it is understood that claim 3 depends on claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-10, 12-23 are rejected under 35 U.S.C. 103(a) as being obvious over Hellmann et al. (US 2003/0105230).

Considering Claims 1, 3, 9-10, 21, 23: Hellmann et al. teaches a modular system comprising: A) at least one base module containing at least one binder, optionally together with organic solvents and B) at least one adhesion module containing at least one adhesion-promoting component, optionally together with conventional coating additives, water and/or organic solvents, and E) at least one crosslinking agent module containing at least one crosslinking agent, optionally together with organic solvents (§0008-14). Component A preferably comprises hydroxyl-functional binders (§0025).

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Component B comprises chlorinated polyolefins (§0045). Component E comprises polyisocyanates (§0060).

Hellmann et al. teaches the solids content of solutions of chlorinated polyolefins in hydrocarbons (solvent) being 18-60 wt-% (§0045). While this refers to just the solids content of the chlorinated polyolefin as supplied from the manufacturer, other components of the adhesion module, ie binder and/or solvents, are optional. Therefore, it is within the scope of the teaching to have an adhesion module comprising only the chlorinated polyolefin solution as supplied by the manufacturer.

While the preferred embodiment teaches that the adhesion module B additionally comprises binders, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. MPEP 2123. At the time of the invention a person of ordinary skill in the art would have found it obvious to have omitted binder, as an equivalent alternative embodiment of the invention.

With regard to the anhydrous limitation, the modular system of Hellmann may be used for the production of aqueous or solvent-based coating compositions (§0016). Furthermore, the components may contain either organic solvents or water (§0009-12). At the time of the invention a person of ordinary skill in the art would have found it obvious to have omitted water, in order to make a solvent-based coating composition.

Hellmann does not teach the claimed storage stability. However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. lack of phase separation for at least three months and no irreversible

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inhomogeneities for at least eight months would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure.

Considering Claims 4-5: Hellmann et al. teaches the chlorinated polyolefins having a degree of chlorination of 15-45 wt-% (§0045).

Considering Claim 7: Hellmann et al. teaches additives being leveling agents, anti-foaming agents, catalysts, dispersing agents, thickeners, and emulsifiers (§0039).

Considering Claim 8: Hellmann et al. teaches the organic solvents being mono- or polyhydric alcohols and esters (§0039), both of which are isocyanate-reactive.

Considering Claim 12: Hellmann et al. teaches producing coating compositions by mixing together the individual modules which are stored as finished units (§0074).

Considering Claim 13: Hellmann et al. teaches coating substrates with the coating composition (§0075).

Considering Claim 14: Hellmann et al. teaches producing coating compositions by mixing together the individual modules which are stored as finished units (§0074).

Considering Claim 15: Hellmann et al. teaches the ratio of reactive functional groups of the binders to the complementarily reactive functional groups of the crosslinking agents being 1:2-2:1 (§0065).

Considering Claim 16: Hellmann et al. teaches module B containing 15% of a 40% chlorinated polyolefin mixture (§0080). Module B is then mixed with 1:1 module A,

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followed by a 4:1 ratio of (A + B):E (¶0086). 15% deionised water is then added to the mixture, resulting in a final chlorinated olefin content of 2.04%.

Considering Claim 17: Hellmann et al. teaches the production of coating compositions with good adhesion (¶0007).

Considering Claim 18: Hellmann et al. teaches coating polycarbonate (¶0091).

Considering Claim 22: Hellmann et al. teaches using aromatic hydrocarbons and esters as solvent (¶0040).

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellmann et al. (US 2003/0105230), as applied to claims 1, 13, and 17 above, and further in view of Merritt et al. (US 6,939,916).

Considering Claims 19-20: Hellmann et al. teaches the basic claimed method as set forth above.

Hellman does not teach the system having a film thickness of up to 10  $\mu\text{m}$ . However, Merritt et al. teaches adhesion promoter coatings based on chlorinated polyolefins (Abs), applied at thicknesses from about 0.01 to about 5.0 mils (0.254-127  $\mu\text{m}$ ) (14:25-30). Hellmann and Merritt are analogous art because they are from the same field of endeavor, namely chlorinated polyolefin coatings. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used the thicknesses, as taught by Merritt, in the invention of Hellmann, in order to make an adhesion promoting coating.

### ***Response to Arguments***

Applicant's arguments filed 6/6/09 have been fully considered but they are not persuasive.

In response to applicant's arguments that the skilled person would be motivated to replace organic solvents with water, Hellmann specifically states that the "invention may be used for the production of aqueous or solvent-based coating compositions" (¶0016). Hellmann is not being modified to remove water, but is merely being relied upon as one of the two embodiments.

In response to applicant's arguments regarding storage stability, a chemical composition and its properties are inseparable. MPEP 2112.01. Furthermore, a reference is presumed operable until applicant provides facts rebutting the presumption of operability. MPEP 2121.02. It is not enough to assert that Hellmann is not storage stable, evidence must be shown. Furthermore, the solvent-based embodiment of Hellmann does not require water, and therefore there would be only two phases, solvents and particulate fillers/pigments.

In response to applicant's arguments regarding the claimed amount of polyolefin, Hellmann et al. teaches the solids content of solutions of chlorinated polyolefins in hydrocarbons (solvent) being 18-60 wt-% (¶0045). While this refers to just the solids content of the chlorinated polyolefin as supplied from the manufacturer, other components of the adhesion module, ie binder and/or solvents, are optional. Therefore, it is within the scope of the teaching to have an adhesion module comprising only the chlorinated polyolefin solution as supplied by the manufacturer.

In response to applicant's arguments regarding claim 23, claim 23 states, "A multicomponent system comprising at least three components, consisting of...". The system **comprises** at least three components, which does not limit the claim to only components I, II, and III.

In response to applicant's arguments regarding Merritt, please see the response above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOAH FRANK whose telephone number is (571)270-3667. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

NF  
8-26-09